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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,591

07/03/2003

Kadri N. Jabri

070191-0355 (131222XZ)

2426

33679 7590 08/22/2007

GE MEDICAL SYSTEM  
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EXAMINER

PATEL, SHEFALI D

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/613,591	JABRI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shefali D. Patel	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) 22-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 15-21 and 49-52 is/are rejected.
- 7) ☒ Claim(s) 10-12, 14, 53 and 54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/3/03</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of Group II in the reply filed on April 10, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Response to Amendment*

2. Claims 22-48 have been canceled.

### *Claim Objections*

3. Claims 16 and 17 are objected to because of the following informalities: Claims 16 and 17 recites the same limitations and have the same dependencies. Please delete one or change the dependency accordingly. Appropriate correction is required.

### *Drawings*

4. New corrected drawings in compliance with 37 CFR 1.121(d) is required in this application because **Figure 1 is hand-drawn**. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 1-9, 13, 15-21 and 49-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Stergiopoulos et al. (US 6,535,570) (hereinafter, "Stergiopoulos").

With regard to **claim 1** Stergiopoulos discloses a method of creating and displaying images resulting from digital tomosynthesis performed on a subject using a flat panel detector comprising the steps of: acquiring a series of x-ray images of the subject, the x-ray images being acquired at two or more different angles relative to the subject (col. 5 lines 10-13); applying a first set of corrective measures to the series of images (col. 5 lines 30-45); reconstructing the series of images into a series of at least one slice through the subject (col. 6 lines 41-58, line 65 to col. 7 lines 1-12); applying a second set of corrective measures to the slice (col. 7 lines 13-17, 39-42 and 49-50); and displaying the images or slice according to at least one of a plurality of display options (col. 8 lines 21-24, col. 13 lines 58-67).

With regard to **claim 2** Stergiopoulos discloses the first set of corrective measures includes at least one of detector correction, intensity correction, scatter correction, geometric correction, motion correction, material decomposition, noise reduction, and filtration (motion correction, col. 5 line 35).

With regard to **claim 3** Stergiopoulos discloses the second set of corrective measures includes at least one of filtering, motion correction, noise reduction, presentation processing, and material decomposition (noise reduction at col. 7 lines 12-16, 49-50).

With regard to **claim 4** Stergiopoulos discloses the display options allow for at least one of a selection of the region of interest, segmentation, formatting of the images, rendering and creation of a three-dimensional display, and creation of a two-dimensional display (two dimensional images, col. 10 lines 39-51 on display 12).

With regard to **claim 5** Stergiopoulos discloses the step of displaying the images or slice according to at least one of a plurality of display options comprises the step of displaying one or more of the images in a two-dimensional display (two dimensional images, col. 10 lines 39-51 on display 12).

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With regard to **claim 6** Stergiopoulos discloses displaying the images or slice according to at least one of a plurality of display options comprises the step of displaying one or more of the images in a three-dimensional display (col. 15 lines 26-33).

With regard to **claim 7** Stergiopoulos discloses applying computer assisted processing and diagnosis algorithms to data represented by the images or slice (col. 10 lines 32-34 and col. 12 lines 4-17).

With regard to **claim 8** Stergiopoulos discloses archiving data represented by the images or slice (archiving in the computer illustrated in Figure 9 and its respective portions in the specification at col. 10 lines 39-51).

With regard to **claim 9** Stergiopoulos discloses the step of acquiring a series of x-ray images of the subject is performed before the step of reconstructing the series of images into a series of at least one slice through the subject (it is clearly shown at col. 5 and col. 6 that these two steps happen in that order – also discussed above in claim 1).

With regard to **claim 13** Stergiopoulos discloses the step of reconstructing the series of images into a series of at least one slice through the subject further comprises the step of applying a reconstruction algorithm to the data represented by the series of x- ray images, the reconstruction of the at least one slice being optionally based on historical information relating to at least one of the physical condition of the subject, the pathological condition of the subject, and the acquisition parameters of at least one previous acquisition (based on the previous acquisition – time dependent – col. 6 lines 41-58, col. 6 lines 65-67).

**Claim 15** recites identical features as claim 1 except claim 15 is a system claim. Please see the system illustrated in Figure 9. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 15.

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**Claims 16-17** recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 are equally applicable to claims 16-17.

**Claim 18** recites identical features as claim 3. Thus, arguments similar to that presented above for claim 3 is equally applicable to claim 18.

**Claim 19** recites identical features as claim 4. Thus, arguments similar to that presented above for claim 4 is equally applicable to claim 19.

**Claim 20** recites identical features as claim 7. Thus, arguments similar to that presented above for claim 7 is equally applicable to claim 20.

**Claim 21** recites identical features as claim 8. Thus, arguments similar to that presented above for claim 8 is equally applicable to claim 21.

**Claim 49** recites identical features as claim 1. Thus, arguments similar to that presented above for claim 1 is equally applicable to claim 49.

**Claim 50** recites identical features as claim 2. Thus, arguments similar to that presented above for claim 2 is equally applicable to claim 50.

**Claim 51** recites identical features as claim 13. Thus, arguments similar to that presented above for claim 13 is equally applicable to claim 51.

**Claim 52** recites identical features as claim 4. Thus, arguments similar to that presented above for claim 4 is equally applicable to claim 52.

#### ***Allowable Subject Matter***

7. Claims 10-12, 14 and 53-54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US 7,155,045 – Method and apparatus for correcting the contrast density of a radiography image

US 6,862,364 – Stereo image processing for radiography

US 6,990,229 – Image processing device and image processing method for picturing a 3-D image

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shefali D Patel  
Examiner  
Art Unit 2624

sdp



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